

**BUREAU OF AUTOMOTIVE REPAIR**

**INITIAL STATEMENT OF REASONS**

**HEARING DATE:**

**SOUTHERN CALIFORNIA**

Friday, June 10, 2011 at 10:00am  
Bureau of Automotive Repair  
Conference/Training Room  
1180 Durfee Avenue, Suite 120  
South El Monte, CA 91733

**NORTHERN CALIFORNIA**

Monday, June 13, 2011 at 10:00am  
Department of Consumer Affairs  
Hearing Room  
1625 North Market Blvd., S-102  
Sacramento, CA 95834

**SUBJECT MATTER OF  
PROPOSED REGULATIONS:**

**STAR Program**

- i. Inspection-Based Performance Standards;
- ii. Removal of the Gold Shield Certification Program;
- iii. Incorporate the STAR Application

**SECTIONS AFFECTED:**

The following sections of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations:

§§ 3340.1, 3340.16, 3340.16.5, and 3340.41

The following sections of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations:

§§ 3392.1, 3392.2, 3392.2.1, 3392.3, 3392.3.1, 3392.4, 3392.5, 3392.5.1, 3392.6, and 3392.6.1

**SPECIFIC PURPOSE OF REGULATORY PROPOSAL:**

The Bureau of Automotive Repair (BAR) is proposing the following amendments to existing regulations:

- I. **Inspection-Based Performance Standards:** AB 2289 requires BAR to establish inspection-based performance standards that stations would be required to meet in order to issue certificates to likely-high emitting and gross-polluting vehicles pursuant to H&S sections 44010.5 and 44014.7, respectively. This voluntary program will be referred to as the STAR program. The new program will be available to any Test-and-Repair and Test-Only station meeting eligibility criteria established in regulation. The STAR program is based on some criteria currently applied to certified Gold Shield Test-and-Repair stations, with the addition of new criteria intended to improve the identification of higher-performing stations.
- II. **Removal of the Gold Shield Certification Program:** As part of the implementation of the inspection-based performance standards, BAR must revise the current Gold Shield regulations to provide a sunset date for the program. The Gold Shield program will sunset on December 31, 2012 and be replaced with the STAR program commencing January 1, 2013. The current Gold Shield program provides for the voluntary certification of licensed Smog Check Test-and-Repair stations. These certified stations are permitted to test likely high-emitting vehicles for their biennial Smog Check inspection and gross-polluting vehicles pursuant to H&S sections 44010.5 and 44014.7, respectively.
- III. **Incorporate the STAR Application:** Due to the implementation of inspection-based performance standards, BAR developed a new application for the STAR certification program. This application will be incorporated by reference into regulation.

The proposed action will make the following changes to existing regulation:

1. Amend Section 3340.1 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:
  - a. Add definition for Acceleration Simulation Mode (ASM) test.

The ASM test is not new to the Smog Check Program, but the definition was not included in prior regulatory packages. It is necessary to define an ASM test to provide the public clear and concise regulations.
  - b. Add definition for chassis dynamometer since this term is used in the definition of ASM.

Although a chassis dynamometer is not a new component to the Smog Check Program the definition was never defined in regulation. It is necessary to define a chassis dynamometer to provide the public clear and concise regulations.

- c. Amend the definition of clean piping.

The definition was reworded to provide a more accurate description of what the act of clean piping entails. This change makes it easier for the public to understand the term.

- d. Amend the existing Comparative Failure Rate (CFR) definition.

This revision adds a sunset date of December 31, 2012 for the CFR definition, which is used in determining Gold Shield eligibility.

- e. Add a definition for Excessive Test Deviation Rate.

This term is necessary to define because it will be used to identify higher-performing stations. This metric is designed to measure improper inspection behavior. BAR measures the rate at which a station exceeds the maximum level of improper inspections for several elements of a Smog Check. If a station surpasses a specified number of test deviations the station is not eligible for STAR certification or, if already certified, it may be grounds for BAR to invalidate the station's certification.

- f. Add a definition for Follow-up Pass Rate (FPR).

The FPR is like the Similar Vehicle Failure Rate (SVFR), but rather than examining the expected versus achieved failure rates as a function of who is inspecting the vehicles today, it groups the data based upon who last certified the vehicles. In short, vehicles certified improperly in the past inspection cycle are more likely to fail in the current cycle than vehicles that were properly certified. BAR created the FPR as a long-term performance measure for identifying higher-performing stations.

- g. Add a definition for Gear Shift incident.

Shifting a vehicle transmission into the wrong gear during an ASM test is a quick way to improperly pass vehicles undergoing Smog Check inspections. By having a vehicle transmission in the correct gear during an emissions test, vehicles are more likely to receive a proper inspection. BAR created this performance measure for the purpose of identifying higher-performing stations. ASM inspection procedures, including proper gear selection for automatic and manual transmission vehicles, are included in the Smog Check Inspection Procedures Manual, which is incorporated by reference in California Code of Regulations (CCR) section 3340.45 of Title 16.

- h. Amend the definition of Gold Shield station.

Due to the passage of AB 2289, it is necessary to sunset the current Gold Shield certification program and replace it with the proposed STAR certification program.

- i. Add definition for Similar Vehicle Failure Rate (SVFR), which will become effective July 1, 2012.

The new SVFR will be used to predict whether a station is failing vehicles at a reasonable rate when compared to results from similar vehicles inspected at other stations. BAR created this performance measure for the purpose of identifying higher-performing stations.

- j. Add a definition for Similar Vehicles to clarify the term included in the definitions of SVFR and FPR.

A similar vehicle means a vehicle with the same VLT Row ID. If sufficient data for a certain vehicle is not available, it will be compared to vehicles with similar model year, make, model, engine displacement, transmission type and body type. This term has been added to provide the public clear and concise regulations.

- k. Add a definition for the STAR program.  
BAR is developing in this regulation a new certification program that relies on inspection-based performance standards mandated by AB 2289. It is necessary to define the program to provide the public clear and concise regulations. This new voluntary certification program, which will be open to all Smog Check Test-Only and Test-and-Repair stations, will be called the “STAR program.”
- l. Add the definition of Technician Information Table.

The Technician Information Table already exists as a function of the emissions inspection system (EIS), which is used to perform Smog Check inspections. The information in this table will be used to determine whether a particular technician is employed to perform Smog Check inspections at a specific station. BAR will use this information in calculating the station FPR score. Adding this definition provides the Smog Check stations and technicians clear and concise regulations.

- m. Add a definition for Test Deviation.

Test deviations are an indicator of improper inspections and, as such, have been included as a measure of performance. This term is necessary to define because it will be used to identify higher-performing stations.

- n. Amend the definition of Test-Only station.

This proposed change updates the definition to provide the public with a more accurate and recognizable description of a Test-Only station.

- o. Add the definition of the Two-Speed Idle (TSI) test.

While the TSI test is not new to the Smog Check Program, it was never defined in regulation. A definition will make certain that the term is used consistently throughout regulations. Adding this definition provides stations and technicians clear and concise regulations.

- p. Add the definition of VLT Row ID.

VLT Row ID is a term used in the definitions for SVFR and FPR. This definition is necessary because it is a specialized term only used in relation to the Smog Check Program.

- 2. Amend Section 3340.16 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Amend subsection (e) to add a sunset date.

Recent amendments to H&S section 44014.5 changed a provision in law that made it illegal for a Test-Only station to refer a vehicle owner to a particular ARD or provider of repair services. This section of regulation will sunset on December 31, 2012 once the new STAR performance standards become operative.

- b. Add subsection (f).

This subsection will become effective after the sunset date of subsection (e). This subsection was added due to recent amendments to H&S section 44014.5. AB 2289 removed certain “conflict of interest” language preventing ownership of Test-Only and Test-and-Repair stations within a certain proximity. Changes to this section harmonize with statutory requirements.

This change creates a new subsection (f) in regulation.

- c. Amend subsection (g).

This section limits a Test-Only station from having any financial interest in a Test-and-Repair station within 50 statute miles of each other. Due to recent amendments to H&S section 44014.5, this limitation is no longer valid and therefore must sunset on December 31, 2012.

This amendment also renumbers subsection (f) to (g).

- d. Add subsection (h).

As a result of AB 2289, H&S section 44014.5 was amended to restrict a Test-

Only station from referring a vehicle owner to a repair facility in which the Test-Only has a financial interest. This section incorporates these changes and specifies in detail what a financial interest entails.

3. Amend Section 3340.16.5 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Amend subsection (b)(3) to replace loaded mode with ASM.  
This change is necessary to use consistent terminology for a term that is defined in 3340.1.
- b. Amend subsection (d), to add a sunset date.

Recent amendments to H&S section 44014.5 changed a provision in law that made it illegal for a Test-and-Repair station to refer a vehicle owner to a particular Test-Only station for testing and certification of a vehicle that has been identified as a likely high-emitter. This section of regulation will sunset on December 31, 2012 once the new STAR performance standards become operative.

- c. Add subsection (e).

H&S section 44014.5 was recently amended to restrict a Test-Only station from referring a vehicle owner to a repair facility in which the Test-Only has a financial interest. AB 2289 did not specifically address, but left open for interpretation, the relationship of a Test-and-Repair station, which is not STAR certified, from referring a vehicle to a particular STAR station. As a result, this regulation specifies that a Test-and-Repair station cannot refer a likely high-emitting vehicle to a particular STAR station in which it has a financial interest. This section incorporates these changes and specifies in detail what a financial interest entails.

- d. Amend subsection (e).

This section limits a Test-and-Repair station from having any financial interest in a Test-Only station within 50 statute miles of each other. Due to recent amendments to H&S section 44014.5, this limitation is no longer valid and therefore must sunset on December 31, 2012.

This amendment also renumbers subsection (e) to (f).

4. Amend Section 3340.41 of Article 5.5 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Amend subsection (e) to add a sunset date.

This requires BAR to sunset the current Gold Shield program on December 31, 2012 in favor of the STAR program which only uses inspection-based performance standards.

b. Add subsection (f).

Due to recent statute changes pursuant to AB 2289, BAR was mandated to develop inspection-based performance standards that would apply to both licensed Test-Only and Test-and-Repair stations. As a result, the new STAR program requires likely high-emitting and gross polluting vehicles to receive an inspection at STAR certified stations.

5. Amend Section 3392.1 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Due to recent statute changes pursuant to AB 2289, BAR was mandated to develop inspection-based performance standards. This requires BAR to sunset the current Gold Shield program on December 31, 2012.

6. Amend Section 3392.2 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Due to recent statute changes pursuant to AB 2289, BAR was mandated to develop inspection-based performance standards. This requires BAR to sunset the current Gold Shield program on December 31, 2012.

7. Add Section 3392.2.1 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. As of January 1, 2013, the Gold Shield program will be replaced with the STAR program. Specific changes are as follows:
  - i. The title of the section has been changed for the purpose of providing clarity.
  - ii. As applicable, the required services of STAR certified stations include the following:
    - 1. Certify Gross Polluters;
    - 2. Certify likely high-emitting vehicles;
    - 3. STAR certified stations located outside of an Enhanced Area may certify a vehicle registered in an Enhanced Area if the vehicle is owned by a motor vehicle dealer;
    - 4. Offer CAP services;
    - 5. Perform repair work in a good and workmanlike manner;
    - 6. Allow BAR staff reasonable access.

- iii. Since both Test-Only and Test-and-Repair stations are eligible to become STAR certified, the requirements assigned to them need to be changed to emphasize their distinction. Specifically, Test-and-Repair stations meeting the performance standards established under this voluntary certification program are required to offer state-subsidized repairs under the Consumer Assistance Program to vehicles failing a biennial Smog Check inspection pursuant to Health and Safety Code section 44062.1; while Test-Only stations cannot because they are licensed only to perform inspections on vehicles.
  - iv. Other minor changes were made to improve the clarity of portions of this section.
8. Amend Section 3392.3 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:
- a. Due to recent statute changes pursuant to AB 2289, BAR was mandated to develop inspection-based performance standards. This requires BAR to sunset the current Gold Shield program on December 31, 2012.
9. Add Section 3392.3.1 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:
- a. This section defines eligibility requirements for stations seeking STAR certification and incorporates by reference the STAR Station Certification Application form (STAR-1 07/1/2012). At the end of December 31, 2012, the current Gold Shield program will sunset. To assure that the transition to the new STAR program is seamless, this section permits current Gold Shield certified stations, as well as any other station seeking to participate in the STAR program to apply and become certified up to six months prior to the STAR program becoming operational on January 1, 2013. This means stations can apply and become certified beginning as early as July 1, 2012 for the STAR program that becomes operational on January 1, 2013.
  - b. Since AB 2289 requires the BAR to develop a certification program based solely on inspection-based performance standards, all repair-related requirements currently applicable to the Gold Shield program will be eliminated under the STAR program. BAR will use new inspection-based performance standards, some of which are derived from the current Gold Shield eligibility criteria, to determine station eligibility for the STAR program. The following are requirements of the STAR program:
    - i. Similar Vehicle Failure Rate (SVFR)

The SVFR is used to predict whether a station is failing vehicles at a

reasonable rate when compared to inspection results for similar vehicles inspected at other stations statewide. At present, BAR uses the CFR which examines model year and whether a vehicle was required to have an inspection pursuant to H&S section 44010.5 to determine expected versus achieved failure rates. The proposed SVFR definition incorporates additional vehicle specific characteristics, such as make, model, and vehicle mileage, to produce a more accurate measure of performance. To be eligible for the STAR program, a station's SVFR in the most recent calendar quarter shall be greater than or equal to 75% of the state-wide failure rate in the Smog Check inspection industry.

ii. Gear Shift Incidents

Shifting a vehicle transmission into the wrong gear during an ASM test can be a quick way to falsely pass a vehicles Smog Check inspection. By having a vehicle transmission in the correct gear during an emissions test, vehicles are more likely to receive a proper inspection.

iii. Excessive Test Deviation Rate (Ignition Timing Test, Fuel Cap Integrity Test, Low-Pressure Fuel Evaporative Test (LPFET), On-Board Diagnostics (OBDII) Test, OBDII Readiness Monitors, ASM Inspection Restarts, and Inspection Aborts)

This metric is designed to measure potentially problematic inspection behavior. BAR measures the rate at which a station exceeds the maximum level of improper inspections for each of these required elements of a Smog Check. The Excessive Test Deviation Rate is counted for each of the following occurrences:

1. The rate at which the ignition timing test is not performed on vehicles for which it should be performed exceeds the statewide average for similar vehicles.
2. The rate at which the fuel cap integrity test is not performed on vehicles for which it should be performed exceeds the statewide average for similar vehicles.
3. The rate at which the low pressure fuel evaporative test is not performed on vehicles for which it should be performed exceeds the statewide average for similar vehicles.
4. The rate at which inspections are aborted exceeds 125% of the statewide average for similar vehicles.
5. The rate at which inspections are restarted exceeds 125% of the statewide average for similar vehicles.

6. The rate at which the maximum number of allowable OBDII readiness monitors are unset exceeds 125% of the statewide average for similar vehicles.
7. The rate at which the OBDII inspection is not performed on vehicles for which it should be performed exceeds the statewide average for similar vehicles.

iv. Follow-up Pass Rate (FPR)

Identifies which STAR certified stations must employ higher performing technicians. Currently, there are no limitations as to whom a station can employ for the purpose of inspecting and repairing the highest-polluting vehicles. Stations are solely responsible for the behavior of their technicians. This change ensures that technicians will also be responsible for their long-term performance. Stations will be responsible for maintaining their FPR score; this can be accomplished by hiring the most competent technicians that repeatedly perform proper inspections. STAR certified stations that have low FPR scores will not be allowed to hire new technicians or technicians without FPR scores (generally caused by low test volume). STAR certified stations with higher FPR performance will be able to hire new technicians and technicians that have not received an FPR score.

FPR scores will be available upon adoption of this regulation. This will provide stations and technicians sufficient time to improve an FPR score by modifying behavior prior to the actual application of this performance measure.

v. Citations, Probation, Crimes, and Discipline

Stations are ineligible for the STAR program if the station or technician has been issued any citations by BAR that took effect within the last year. Similarly, the station or technician may not have any administrative actions that became effective within the last three years. Stations and technicians may not have been convicted of a crime or be liable in a civil suit, as related to their duties as an ARD, a Smog Check station, or a Smog Check technician, that became effective within the last three years.

vi. Compliance with all licensure, license posting, estimate, repair order, invoice, and record-keeping requirements.

BAR requires STAR stations meet these requirements as a means of providing consumer protection.

- vii. Possession of all required manuals, publications, tools, equipment, and verification of their proper working order.

BAR requires STAR stations have and maintain these items to make sure the station is equipped to handle vehicle repairs. Ultimately, this requirement helps ensure consumer protection.

- viii. STAR certified stations must display a STAR sign.

Consumers with a likely high-emitting or gross polluting vehicle must receive an inspection at a STAR certified station. This requirement necessitates BAR developing signage to help the public identify Smog Check stations that are eligible to provide STAR services.

- ix. STAR stations cannot have had a STAR certification invalidated within the last six months.

This requirement is necessary in order to ensure the protection of consumers from potentially fraudulent Smog Check inspections. Requiring stations to wait six months before reapplying will incentivize stations to work more diligently and carefully at performing inspections correctly. This condition reduces BAR workload associated with stations bouncing in and out of the program.

10. Add Section 3392.4 to Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Establish an effective date of January 1, 2013 for the STAR program.
- b. This section addresses the STAR certification program evaluation. Specifically, this section does the following:
  - i. STAR certified stations must continue to meet the STAR performance measures on a quarterly basis. This requirement will help ensure stations continue to operate at a high standard and likely high-emitting vehicles are inspected properly.
  - ii. This section allows BAR to physically inspect STAR certified stations for compliance with station requirements. This inspection will allow BAR to monitor station performance to ensure they continue to operate at a high standard.
  - iii. AB 2289 requires that BAR provide an individual technician and station their STAR score prior to the program being implemented. The scores will be made available on BAR's Web site and provide businesses and individuals an easily accessible medium for viewing their performance in

relation to the STAR program. To view a STAR score an individual must know the station's or the technician's license number. Additionally, stations and technicians will have ample time to improve their behavior prior to the January 1, 2013 operational date of the STAR program.

11. Amend Section 3392.5 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Amend this section by adding a sunset date of December 31, 2012 for this Gold Shield program requirement. This change is necessary because AB 2289 requires BAR to develop a certification program that relies strictly on inspection-based performance standards. The new STAR program will become operational on January 1, 2013.

12. Add Section 3392.5.1 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. This section becomes effective January 1, 2013 and specifies causes for invalidation of a STAR certification to ensure that stations and technicians are performing at an acceptable standard. The following are causes for invalidation:
  - i. The station, technician, or manager is subject to any disciplinary action or citation;
  - ii. The station's ARD registration or Smog Check license becomes delinquent;
  - iii. BAR disciplines the ARD registration or Smog Check station license, or the license of any technician employed by the station;
  - iv. The station does not meet for two consecutive calendar quarters the standard for any one of the following performance measures: SVFR; Gear Shift Incident; Excessive Test Deviation Rate;
  - v. The station employs a technician with an Follow-up Pass Rate (FPR) score below 0.1;
  - vi. The station's FPR score is less than 0.1 and the station employs a technician with no FPR score;
  - vii. The station's FPR score is less than 0.4 and the station hires a technician with no FPR score;
  - viii. The station hires a technician with an FPR score less than 0.4;
  - ix. The station is unable to provide the services required of a STAR station;

- x. A station located in a basic or change of ownership area that issues a certificate of compliance to an Enhanced Area vehicle without the required ASM test. Vehicles purchased by a motor vehicle dealer with the intent of offering the vehicle for sale upon the dealer's premises are the exception to this rule.

- b. A station may give BAR at least ten days notice to withdraw from the STAR program.

13. Amend Section 3392.6 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. Amend this section by adding a sunset date of December 31, 2012 for this Gold Shield program requirement. This change is necessary because AB 2289 requires BAR to develop a certification program that relies solely on inspection-based performance standards. The new STAR program will become operational on January 1, 2013.

14. Add Section 3392.6.1 of Article 10 of Chapter 1 of Division 33 of Title 16 of the California Code of Regulations, as follows:

- a. This section was added due to the creation of the STAR certification program, which becomes effective January 1, 2013. AB 2289 mandates a specific appeal process and describes the amount of time given for STAR hearings and determinations.

Incorporation by Reference

CCR section 3394.3.1 incorporates the STAR Station Certification Application form (STAR-1 07/1/2012). This form will be used by Smog Check stations that are applying to become STAR certified.

The incorporation by reference of these applications is appropriate since publishing these documents in the California Code of Regulations would be cumbersome, unduly expensive, impractical and unnecessary. If anyone should wish to examine the revised applications, they are available upon request from BAR. The revised applications will also be available for review throughout this rulemaking process and will be available on BAR's Web site at [www.smogcheck.ca.gov](http://www.smogcheck.ca.gov).

**FACTUAL BASIS/RATIONALE:**

The Bureau of Automotive Repair (BAR), within the Department of Consumer Affairs (DCA), is the state agency charged with the administration and implementation of the Smog Check Program (Program). The Program is designed to reduce emissions from mobile sources, such as

passenger vehicles, SUVs, and trucks by requiring these vehicles to meet specific emissions standards as a condition of vehicle registration.

Further, the BAR conducts random roadside audits (Smog Check inspections) on vehicles. The results from these inspections are used to evaluate the performance of the Program in achieving Federal Clean Air Act requirements.

The Air Resources Board (ARB), in cooperation with BAR, hired Sierra Research, Inc. to conduct an independent research and analysis of the Program, using data collected from roadside inspections conducted from 2003 to 2006. The study compared roadside inspection results for 1976-95 (pre-OBDII) model year vehicles to the Smog Check inspection results reported by Smog Check stations for these same vehicles. Key findings included:

1. Of the 1976 to 1995 vehicles sampled, 19% of the vehicles initially passed a tailpipe inspection at a licensed Smog Check station, but failed a roadside audit inspection within a year.
2. The data also showed that 49% of the vehicles that failed a roadside audit inspection had failed, and then subsequently passed, a tailpipe inspection at a Smog Check station within the past year.

The scope of the study did not require the contractor to evaluate the reasons for the roadside inspection failure rate. However, in this report<sup>1</sup>, Sierra Research, Inc. concluded that improper testing or falsified Smog Check inspection results appear to be contributing factors to the elevated failure rate. Several recommendations were made to better address the extent to which improper and/or falsified test results may be factors in the Program. Sierra Research recommended BAR develop a method of evaluating station performance to identify low-performing stations to focus enforcement efforts and create incentives for higher-performing stations. These corrective steps were incorporated into AB 2289.

AB 2289 requires BAR to establish inspection-based performance standards that stations would be required to meet in order to be eligible to issue certificates of compliance or non-compliance to likely high-emitting and gross-polluting vehicles pursuant to H&S 44010.5 and 44014.7, respectively.

The direction of the vehicles most likely to fail their Smog Check inspection to certain stations is done as part of BAR's State Implementation Plan (SIP) to help California achieve Federal Clean Air Act requirements. Further, vehicles failing an inspection as a Gross Polluter, meaning they had exceptionally high exhaust emissions readings, are also required to receive a certificate of compliance at a Test-Only or Gold Shield station.

Prior to the passage of AB 2289, all Test-Only and Gold Shield stations were eligible to test likely high-emitting and gross-polluting vehicles. AB 2289 made significant changes to statute and required all Test-Only and Test-and-Repair stations to meet the same inspection-based

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<sup>1</sup> Sierra Research, Inc. "Evaluation of the California Smog Check Program Using Random Roadside Data", March 12, 2009. [http://www.bar.ca.gov/80\\_BARResources/02\\_SmogCheck/addendum\\_with\\_report.pdf](http://www.bar.ca.gov/80_BARResources/02_SmogCheck/addendum_with_report.pdf)

performance standards, developed by BAR, before they could test likely high-emitting and gross polluting vehicles. In addition, BAR requires Test-and-Repair stations meeting inspection-based performance standards perform state subsidized repairs as part of the Consumer Assistance Program (CAP). Additionally, Test-Only stations are required to meet the same eligibility requirements as a condition of testing likely high-emitting and gross polluting vehicles.

The existing Gold Shield performance criteria include repair-based standards that cannot be applied to Test-Only stations. The new certification program, referred to as the STAR program, relies solely on inspection-based performance standards. Some inspection-based performance standards currently in use have been revised to improve accuracy in determining whether a station or technician is properly inspecting vehicles. These regulations will help improve the effectiveness of the Program by incentivizing the inspection (and repair) of vehicles.

In order to become STAR certified, a Smog Check station cannot surpass the specified Excessive Test Deviation Rate, in a calendar quarter, for the following short term standards:

1. Failure to inspect ignition timing.
2. Failure to perform the fuel cap integrity test.
3. Failure to perform the Low Pressure Fuel Evaporative Test.
4. Failure to perform the OBDII test.
5. Passing OBDII systems with the maximum number of unset readiness monitors allowed.
6. Restarting tests to provide a second chance at passing an inspection.
7. Aborting tests to provide a second chance at passing an inspection.

These short term measures identify parts of the Smog Check inspection that are either not being performed or not being performed correctly. Some vehicles are not compatible with all parts of the Smog Check inspection, due in part to vehicle design. As a result, these measures were designed to only identify a deviation if a majority of similar vehicles in the fleet received the same part of the inspection and the technician failed to perform the test.

Additionally, this proposal creates the Similar Vehicle Failure Rate (SVFR). The SVFR requires that a station failure rate must be greater than or equal to 75% of the failure rate for similar vehicles.

The STAR program also includes a long-term measure called the Follow-up Pass Rate (FPR). The FPR scores reflect the probability that vehicles inspected by each station or technician pass at a higher rate than average in the vehicle's next inspection cycle.

Finally, BAR will evaluate the enforcement history of stations. Station owners applying for certification cannot have been subject to any citations in the past year; administrative actions in

the past three years; been convicted of a crime substantially related to their ARD, Smog Check station, or Smog Check technician in the past three years; been liable in a civil suit related to their duties as an ARD, Smog Check station, or Smog Check technician in the past three years; or had their STAR certification invalidated within the last six months.

Multiple data sources are used to determine the inspection-based performance standards including BAR's Vehicle Information Database (VID) and enforcement records. The VID contains all Smog Check inspection record information including all the vehicle specific inspection results.

BAR has spent much time over the past couple of years developing the performance measures and standards for each of the measures for the STAR certification program. As an important piece of this development process, BAR held eight industry workshops on the proposed STAR Program after AB 2289 was signed by the Governor. The workshops were attended by station owners, technicians, equipment manufacturer representatives, students training in the Smog Check industry, educators from the Smog Check industry, and industry trade organization representatives. These workshops were designed with a heavy focus on dialog with workshop attendees. BAR received valuable feedback during these workshops and made improvements to the performance measures as part of the development process.

The inspection-based performance standards, as proposed in this regulatory package, are designed to reduce smog forming emissions in the State of California. Recent studies such as the 2010 RAND Health Foundation report *The Impact of Air Quality on Hospital Spending* concluded that "Meeting federal clean air standards would have prevented an estimated 29,808 hospital admissions and ER visits throughout California over 2005–2007... Failing to meet federal clean air standards cost health care purchasers/payers \$193,100,184 for hospital care alone. In other words, improved air quality would have reduced total spending on hospital care by \$193,100,184 in total."

Additionally, ARB conducted a study titled *Health Effects of Particulate Matter and Ozone Air Pollution*, November 2007<sup>2</sup> where it identified significant health effects attributable to high levels of ozone. Polluting vehicles produce hydrocarbons and oxides of nitrogen which combine in the presence of sunlight to form bad ozone. Ozone is a powerful oxidant that can damage the respiratory tract, causing inflammation and irritation, and induces symptoms such as coughing, chest tightness, shortness of breath, worsening of asthma symptoms, and even death. Ozone in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The greatest risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Exposure to levels of ozone above the current ambient air quality standard leads to lung inflammation and lung tissue damage, and a reduction in the amount of air inhaled into the lungs. Recent evidence has, for the first time, linked the onset of asthma to exposure to elevated ozone levels in exercising children (McConnell, 2002). These levels of ozone also reduce crop and timber yields, damage native plants, and damage materials such as rubber, paints, fabric, and plastics."

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<sup>2</sup> [http://www.arb.ca.gov/research/health/fs/pm\\_ozone-fs.pdf](http://www.arb.ca.gov/research/health/fs/pm_ozone-fs.pdf)

### **Underlying Data:**

Technical, theoretical or empirical studies or reports relied upon:

1. *Evaluation of the California Smog Check Program Using Random Roadside Data*, Sierra Research, Inc., March 12, 2009, T. Austin, D. McClement, J. Roeschen.
2. AB 2289 (Eng, Chapter 258, Statutes of 2010).
3. Executive Summary Report Calendar Year 2009.
4. Current and Historical STAR PowerPoint presentations.
5. California Air Resources Board and American Lung Association, *Recent Research Findings: Health Effects of Particulate Matter and Ozone Air Pollution*, November 2007.
6. 2010 RAND Health Foundation report, *The Impact of Air Quality on Hospital Spending* (Executive Summary), written by John A. Romley, Andrew Hackbarth, and Dana P. Goldman, sponsored by The William and Flora Hewlett Foundation.
7. 2010 Health-Effects Institute report, *Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects* (Executive Summary).

### **Business Impact:**

#### *Smog Check Station Impact*

AB 2289 and these proposed regulations will prevent lower-performing Test-Only and Test-and-Repair stations from issuing Smog Check certificates to likely high-emitting and gross-polluting vehicles. By eliminating all repair-based standards the proposed regulations will allow some higher-performing Test-and-Repair stations that have been unable to meet existing Gold Shield performance criteria to participate in the STAR program.

BAR will begin implementing the inspection-based performance criteria in phases. Upon adoption of these regulations, BAR plans to provide stations and technicians a preliminary report of their performance. This will provide Smog Check stations and technicians time to assess and modify, if necessary, their behavior prior to the STAR program becoming operational on January 1, 2013. The STAR program is voluntary, and not all stations are expected or will even want to participate. Low-performing stations that do not improve their behavior will find that they will not be able to inspect likely high-emitting and gross-polluting vehicles, because these vehicles will be required to receive an inspection at STAR stations. By controlling which stations are eligible to test likely high-emitting and gross-polluting vehicles a financial incentive is created for stations to modify their behavior. This behavior shift will result in higher quality Smog Check inspections and additional emissions-related repairs for likely high-emitting and gross-polluting vehicles.

The business impact of these proposed regulations may be felt by the industry in a number of different ways and lead to an increased Smog Check failure rate. The 2009 Sierra Research, Inc. report estimates that the Roadside inspection failure rate is, on average, approximately 1.5 times higher than the industry Smog Check failure rate, which suggests that the industry failure rate should be higher than it is today. Improving station performance requirements for stations inspecting likely high-emitting vehicles, additional high-emitting vehicles will appropriately fail their Smog Check inspection. This will increase the number of inspections performed by the industry because more vehicles will need to be re-inspected after initially failing. In turn, this will increase the number of high-emitting vehicles receiving emissions-related repairs.

Since STAR certification does not mandate participation, stations may choose, as a business decision, to meet the certification criteria to test likely high-emitting and gross-polluting vehicles. Stations not meeting the eligibility criteria can continue performing change of ownership inspections, inspections on vehicles being initially registered in California and inspections of vehicles not subject to H&S 44010.5 or 44014.7.

Under the current certification program Test-Only and Test-and-Repair stations that participate in the new STAR program will see an increased number of Smog Check re-tests and repairs. Test-Only stations may realize a drop in initial and re-test inspections and income associated with performing such tests if they do not participate in the STAR program.

Test-and-Repair stations that do not participate in STAR will likely realize increased repair volume due to the anticipated increase to the inspection failure rate. The number of consumers that will seek repairs at STAR stations versus non-STAR stations is indeterminate. While this proposal may affect the number of stations licensed under each type of license, the total number of licensed stations and technicians is not expected to change.

STAR stations will be required to post a STAR program sign similar to the current Gold Shield sign. BAR has informally contacted a variety of sign manufacturers and determined the average cost is approximately \$60 per STAR certified station.

### *Consumer Impact*

Consumers will benefit from greater emissions reductions due to a higher level of state oversight associated with STAR certified stations.

BAR currently offers the Consumer Assistance Program (CAP) Vehicle Retirement (VR) option, which provides consumers an economic incentive to retire their high-emitting vehicle. Consumers meeting income eligibility requirements can receive up to \$1,500 for the retirement of their vehicle. In addition, BAR operates the Repair Assistance (RA) option which offers consumers whose vehicles fail a Smog Check inspection and meet certain eligibility requirements up to \$500 for emissions-related repairs.

Vehicles failing a Smog Check inspection at lower-performing stations tend to use temporary fixes, such as replacing a catalytic converter, while ignoring other vehicle emission component problems that caused the vehicle's catalytic converter to fail in the first place. In this example, the catalytic converter would most likely need to be replaced again upon its next Smog Check inspection. In contrast, high-performing stations typically perform a proper diagnosis, followed by the appropriate repair that targets the root problem for the vehicle failing a Smog Check inspection. Proactive repair work can result in significant long-term savings to consumers.

The 2009 Sierra Research, Inc. report estimates that the Roadside inspection failure rate is, on average, approximately 1.5 times higher than the Smog Check failure rate, which suggests that the Smog Check failure rate should be higher. This means that the development of performance standards for vehicles subject to H&S 44010.5 and 44014.7 means that more consumers will likely fail their Smog Check inspection, and need to properly repair their vehicles. However, consumers will benefit in a number of different ways from these proposed regulations. As more vehicles with emissions-related problems receive appropriate repairs, consumers will likely benefit from improved vehicle reliability, a reduction in future repair bills, improved vehicle fuel economy, a reduction in greenhouse gas emissions, and improved air quality.

#### **Specific Technologies or Equipment:**

This proposal does not require any new technology or equipment.

#### **Consideration of Alternatives:**

No reasonable alternative to the regulations would be either more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed regulations.

**Alternative 1:** BAR considered using the existing Gold Shield certification program; however, AB 2289 required BAR to develop inspection-based performance standards.